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EXAMINER

BOKHARI, SYED M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/718,590	Applicant(s) KINOSHITA ET AL.	
	Examiner SYED BOKHARI	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant amendment filed on April 28th, 2009 has been entered. Claims 2 and 14 have been amended. Claims 10-13 and 15-16 have been canceled. Claims 2-8 and 14 are still pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2, 4-5, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ovadia (US 2004/0208544 A1) in view of Karri et al. (US 2002/0196808 A1) and Black et al. (US 6,614,796 B1).

Karri et al. disclose communications signaling used for reserving a communications path with the following features: regarding claim 2, a resource manager responsive to a label request indicative of a target port selected out of the ports for managing labels, and for issuing a device setup request (Fig. 2, illustrating the exemplary node of the present invention, see “allocating communication resources and connection identifiers and using the set up message” recited in paragraph 0085 lines 1-8), wherein the resource manager consults the port information table to select a target switch controller associated with the target port out of the plurality of switch controllers using the location of the plurality of switch controllers described in the port information table (Fig. 1, illustrating a communication network, see “the label switching router lookup for the port number in the table” recited in paragraph 0016 lines 1-12 in background of the invention), provides the device setup request for the target switch controller, (Fig. 2, illustrating the exemplary node of the present invention, see “a setup

message is used” recited in paragraph 0085 lines 5-8) and wherein the target switch controller updates a setup of the switch device associated with the target switch controller (Fig. 1, illustrating a communication network, see “the information is updated” recited in paragraph 0021 lines 20-26 in background of the invention), regarding claim 4, wherein the port information table describes an association of the ports to the at least one port-to-port connection controller (Fig. 1, illustrating a communication network, see “ingress label switching router performs a routing table lookup” recited in paragraph 0015 lines 13-18 and paragraph 0077 lines 1-15), wherein the resource manager is responsive to a port-to-port connection request indicative of another target port selected out of the ports for managing the labels, and for issuing another device setup request (Fig. 2, illustrating the exemplary node of the present invention, see “allocating communication resources and connection identifiers and using the set up message” recited in paragraph 0077 lines 1-15 and paragraph 0085 lines 1-8), wherein the resource manager consults the port information table to determine a target port-to-port connection controller associated with the another target port out of at least one port-to-port connection controller (Fig. 1, illustrating a communication network, see “the label switching router lookup for the port number in the table” recited in paragraph 0016 lines 1-12 and paragraph 0077 lines 1-15) and provides the another device setup request for the target port-to-port connection controller (Fig. 2, illustrating the exemplary node of the present invention, see “a setup message is used” recited in paragraph 0077 lines 1-15 and paragraph 0085 lines 5-8); regarding claim 14, a port information table describing an association of the ports to the plurality of switch controllers (Fig. 1, illustrating a

communication network, see “ingress label switching router performs a routing table lookup” recited in paragraph 0015 lines 13-18 in background of the invention), providing to a label request indicative of a target port selected out of the ports (Fig. 2, illustrating the exemplary node of the present invention, see “allocating communication resources and connection identifiers and using the set up message” recited in paragraph 0085 lines 1-8), consulting the port information table to determine a target switch controller associated with the target port out of the plurality of switch controllers (Fig. 1, illustrating a communication network, see “the label switching router lookup for the port number in the table” recited in paragraph 0016 lines 1-12 in background of the invention), providing a device setup request for the target switch controller (Fig. 2, illustrating the exemplary node of the present invention, see “a setup message is used” recited in paragraph 0085 lines 5-8), and updating a setup of the switch device associated with the target switch controller in response to the device setup request (Fig. 1, illustrating a communication network, see “the information is updated” recited in paragraph 0021 lines 20-26 in background of the invention).

Karri et al. do not disclose the following features: regarding claim 2, a GMPLS controller comprising, a plurality of switch controllers controlling a plurality of switch devices, respectively and each of the plurality of switch devices including at least one port and a port information table describing a location of each of the plurality of switch controllers; regarding claim 4, further comprising at least one port-to-port connection controller for achieving a port-to-port connection between two out of the plurality of switch devices; regarding claim 5, wherein the plurality of switch controllers include

interfaces, respectively, and the interfaces uses a same protocol to receive the device setup request; regarding claim 7, wherein the resource manager manages bandwidth information of the GMPLS network; regarding claim 14, a method for controlling switch devices provided for a GMPLS network, comprising providing a GMPLS controller including, a plurality of switch controllers controlling a plurality of switch devices, respectively, each of the plurality of switch devices including at least one port and a port information table describing a location of each of the plurality of switch controllers.

Ovadia discloses an optical network for optical buffering of photonic switch fabrics with the following features: regarding claim 2, a GMPLS controller comprising (Fig. 3, a block diagram illustrating a core switching node module for use in a photonic burst switching network, see "controller 88 provides a control plane signaling using GMPLS protocols" recited in paragraph 0068 lines 9-11), a plurality of switch controllers controlling a plurality of switch devices, respectively (Fig. 8, a block diagram illustrating a core switching node that supports GMPLS, see "the switches provide switching under the control interface unit 81" recited in paragraph 0066 lines 1-9 and paragraph 0067 lines 10-12) and each of the plurality of switch devices including at least one port (Fig. 3, a block diagram illustrating a core switching node module for use in a photonic burst switching network, see "each switch contains plurality of ports" recited in paragraph 0048 lines 11-14); regarding claim 4, further comprising at least one port-to-port connection controller for achieving a port-to-port connection between two out of the plurality of switch devices (Fig. 3, a block diagram illustrating a core switching node module for use in a photonic burst switching network, see "controller 88 provides a

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control plane signaling using GMPLS protocols" recited in paragraph 0068 lines 9-11 and paragraph 0048 lines 1-14); regarding claim 5, wherein the plurality of switch controllers include interfaces, respectively, and the interfaces uses a same protocol to receive the device setup request (Fig. 8, a block diagram illustrating a core switching node that supports GMPLS, see "the control interface unit 81 whereas the network supports GMPLS protocol" recited in paragraph 0066 lines 1-11); regarding claim 7, wherein the resource manager manages bandwidth information of the GMPLS network (Fig. 1, a simplified flow diagram illustrating a photonic burst switching network, see "the ingress and egress switching node reserved bandwidth or release bandwidth is managed by the controller" recited in paragraph 0039 lines 1-8); regarding claim 14, a method for controlling switch devices provided for a GMPLS network (Fig. 8, a block diagram illustrating a core switching node that supports GMPLS, see "switching network supports GMPLS switching" recited in paragraph 0066 lines 1-5), comprising providing a GMPLS controller including (Fig. 3, a block diagram illustrating a core switching node module for use in a photonic burst switching network, see "controller 88 provides a control plane signaling using GMPLS protocols" recited in paragraph 0068 lines 9-11), a plurality of switch controllers controlling a plurality of switch devices, respectively (Fig. 8, a block diagram illustrating a core switching node that supports GMPLS, see "the switches provide switching under the control interface unit 81" recited in paragraph 0066 lines 1-9 and paragraph 0067 lines 10-12) and each of the plurality of switch devices including at least one port (Fig. 3, a block diagram illustrating a core switching node

module for use in a photonic burst switching network, see "each switch contains plurality of ports" recited in paragraph 0048 lines 11-14).

It would have obvious to one of the ordinary skill in the art at the time of invention to modify the system of Karri et al. by using the functions, as taught by Ovadia, in order to provide a GMPLS controller comprising, a plurality of switch controllers controlling a plurality of switch devices, respectively and each of the plurality of switch devices including at least one port and a port information table describing a location of each of the plurality of switch controllers, at least one port-to-port connection controller for achieving a port-to-port connection between two out of the plurality of switch devices; regarding claim 5, wherein the plurality of switch controllers include interfaces, respectively, and the interfaces uses a same protocol to receive the device setup request, the resource manager manages bandwidth information of the GMPLS network, controlling switch devices provided for a GMPLS network, comprising providing a GMPLS controller including, a plurality of switch controllers controlling a plurality of switch devices, respectively, each of the plurality of switch devices including at least one port and a port information table describing a location of each of the plurality of switch controllers. The motivation of using these functions is to enhance the system in a cost effective manner.

Karri et al. and Ovadia do not fully disclose the following features: regarding claim 2, a port information table describing a location of each of the plurality of switch controllers and regarding claim 14, a port information table describing a location of each of the plurality of switch controllers.

Black et al. disclose a switch, switched architecture and process for transferring data through an FCAL switch uses multiple switch control circuits each coupled to one FCAL network with the following feature: regarding claim 2, a port information table describing a location of each of the plurality of switch controllers (Fig. 3, a block diagram of the preferred switched FCAL architecture, see “the destination address from the OPN is used to address a lookup table which outputs data as to which loop the destination node is on and to which switch chip or port coupled to the destination loop the switching connection should be made” recited in column 7 lines 63-67 and column 8 lines 1-6) and regarding claim 14, a port information table describing a location of each of the plurality of switch controllers (Fig. 3, a block diagram of the preferred switched FCAL architecture, see “the destination address from the OPN is used to address a lookup table which outputs data as to which loop the destination node is on and to which switch chip or port coupled to the destination loop the switching connection should be made” recited in column 7 lines 63-67 and column 8 lines 1-6).

It would have obvious to one of the ordinary skill in the art at the time of invention to modify the system of Karri et al. with Ovadia by using the functions, as taught by Black et al., in order to provide a port information table describing a location of each of the plurality of switch controllers. The motivation of using these functions is that it uses destination address in an FCAL OPN primitive to find the remote chip or port but uses buffers instead of hold back flow control to complete the transaction.

7. Claims 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ovadia (US 2004/0208544 A1) in view of Karri et al. (US 2002/0196808 A1) and Black et al. (US 6,614,796 B1) as applied to claims 1 and 14 above, and further in view of Nomura et al. (US 7,133,402 B2).

Karri et al., Ovadia and Black et al. describe the claimed limitations as discussed in paragraph 6 above. Karri et al., Ovadia and Black et al. do not disclose the following features: regarding claim 3, further comprising a label database describing whether each of the labels is in use or not, wherein the label request is indicative of a target label, and wherein the resource manager updates the label database to indicate that the target label is in use; regarding claim 6, the plurality of switch devices include at least two out of an MPLS switch, a TDM switch, a Lambda switch, and a fiber switch and regarding claim 8, wherein the resource manager manages LSP information of the GMPLS network.

Nomura et al. discloses a link identifier assignment system in connection-oriented communication network with the following features: regarding claim 3, a label database describing whether each of the labels is in use or not (Fig. 2, label assignment module 100, see “process of reflecting this entry in the label assignment table” recited in column 19 lines 17-25); wherein the label request is indicative of a target label (Fig. 2, label assignment module 100, see “assigning the same label value to the establishing target connection” recited in column 17 lines 22-27 and column 16 lines 58-64) and wherein the resource manager updates the label database to indicate that the target

label is in use (Fig. 2, label assignment module 100, see “label assignment indication is stored” recited in column 18 lines 46-59 in Third Embodiment); regarding claim 6, the plurality of switch devices include at least two out of an MPLS switch, a TDM switch, a Lambda switch, and a fiber switch (FIG. 1, outline of present invention, see “MPLS (Multi Protocol Label Switching and optical switches (optical cross connects OXC)” recited in column 1 lines 9-12 in field of invention and lines 31041 in description of related art) and regarding claim 8, wherein the resource manager manages LSP information of the GMPLS network (Fig. 2, LSP connections, see “label assignment processing module 100”, recited in column 6 lines 8-15).

It would have been obvious to one of ordinary skill in the art at the time of Invention to modify the system of Karri et al. with Ovadia and Black et al. by using the features, as taught by Nomura et al., in order to provide a label database describing whether each of the labels is in use or not, wherein the label request is indicative of a target label, and wherein the resource manager updates the label database to indicate that the target label is in use, the plurality of switch devices include at least two out of an MPLS switch, a TDM switch, a Lambda switch, and a fiber switch and wherein the resource manager manages LSP information of the GMPLS network. The motivation of using these functions is to enhance the system in a cost effective manner.

Response to Arguments

8. Applicant's arguments with respect to claims 2-8 and 14 have been considered but are moot in view of the new ground(s) of rejection. Applicant states in the remarks

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“The Official Action suggests that the artisan would choose the particular features from OVADIA that are missing from KARRI et al. because this would enhance the system in a cost effective manner. However, there is nothing in OVADIA or the art that suggests why the particular features that the Official Action has selected from OVADIA would make the system in KARRI et al. more cost effective. OVADIA disclose a number of features; why do the ones that are missing from KARRI et al. happen to be the ones that make the KARRI et al. system cost effective? Why would the artisan pick these features from the many disclosed in OVADIA? The general and universal motivation to enhance cost effectiveness is not sufficient basis for the artisan to pick the very features that are missing from KARRI et al. Absent some particular motivation to choose these features, the Official Action is impermissibly picking and choosing features; there must be some concrete basis for choosing the features from OVADIA that are missing from KARRI et al. Further, OVADIA does not suggest that the particular features selected in the Official Action contribute to cost effectiveness in the OVADIA device; why would they contribute to cost effectiveness in the KARRI et al. device”? Examiner respectfully disagrees with the applicant. The basis for the motivation of using the functions of Ovadia is that the PBS modules routes the received optical burst labels and network management control labels to the controllers.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SYED BOKHARI whose telephone number is (571)270-3115. The examiner can normally be reached on Monday through Friday 8:00-17:00 Hrs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Syed Bokhari/
Examiner, Art Unit 2416
8/9/2009

/KWANG B. YAO/
Supervisory Patent Examiner, Art Unit 2416